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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/735,607	12/14/2000	Simon Love	4481-037	5783

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EXAMINER	
HOM, SHICK C	

ART UNIT	PAPER NUMBER
2666	

DATE MAILED: 04/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/735,607	LOVE ET AL.	
	Examiner	Art Unit	
	Shick C Hom	2666	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 November 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in

order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1-4, 8-9, 12-13, 17-18, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sabaa et al. (6,389,016) in view of Bahl (6,629,151).

Regarding claims 1, 13:

Sabaa et al. disclose the method of data transmission in a network in which data packets have sequence numbers and sending stations retransmit packets which are deemed to be lost (see col. 2 line 47 to col. 3 line 63 which recite retransmitting lost packets using packets having a sequence number), comprising the steps of: monitoring the occurrence of packets at a point in the network; tracking the sequence numbers of packets successively monitored at the point (see col. 7 line 64 to col. 8 line 15 and col. 10 lines 38-51 which recite the step of tracking sequence numbers); detecting occurrence of a sequence number less than a next expected sequence number to as being indicative of occurrence of packet retransmission (see col. 10 lines 18-36 which recite all retransmitted packets with sequence numbers less than the expected sequence number clearly anticipate sequence number less than expected sequence number as

being retransmission); and incrementing a retransmission count in accordance with the quantity of retransmitted data (see col. 6 lines 23-30 which recite incrementing the expected sequence number when a packet is accepted clearly reads on incrementing a count in accordance with quantity of data).

Regarding claims 8, 18:

Sabaa et al. disclose the method of data transmission in a network in which data packets have sequence numbers and sending stations retransmit packets which are deemed to be lost (see col. 2 line 47 to col. 3 line 63 which recite retransmitting lost packets using packets having a sequence number), comprising the steps of: monitoring the occurrence of packets at a point in the network; tracking the sequence numbers of packets successively monitored at the point (see col. 7 line 64 to col. 8 line 15 and col. 10 lines 38-51 which recite the step of tracking sequence numbers); detecting occurrence of a sequence number greater than a next expected sequence number to as being indicative of occurrence of packet loss at the point (see col. 2 line 63 to col. 3 line 25 which recite sending a negative acknowledgment if the sequence number of the received packet is greater than the expected sequence number clearly anticipate the occurrence of packet loss, i.e. negative acknowledgment, when the sequence number greater than the expected sequence number);

and incrementing a loss count in accordance with the quantity of lost data at the point (see col. 6 lines 23-30 which recite incrementing the expected sequence number when a packet is accepted clearly reads on incrementing a count in accordance with quantity of loss data because if the packet is loss than the expected sequence number would not be incremented and therefore at least one more packet must be transmitted due to the loss, i.e. incrementing count due to loss packet).

Regarding claim 3:

Sabaa et al. disclose wherein traffic in the network at the monitored point is coherent traffic which traverses the monitored point in the order of packet transmission (see col. 1 lines 14-22 which recite packets being transported and received in order).

For claims 1-4, 8-9, 12-13, 17-18, and 21, Sabaa et al. disclose all the subject matter of the claimed invention with the exception of the method of measuring the efficiency of data transmission including the step of reporting the retransmission count as indicative of the transmission efficiency as in claims 1, 8, 13, 18; wherein the network uses TCP as in claims 2, 3; including selecting at least one specific connection for monitoring by reference to at least one of: (a) an IP address of a connection end-point, (b) a port at an end-point, and (c) a

protocol as in claims 4, 9; and further including a monitor for the packets adapted to be coupled to the point as in claims 17, 21.

Bahl from the same or similar fields of endeavor teach that it is known to provide the method of measuring the efficiency of data transmission including the step of reporting the retransmission count as indicative of the transmission efficiency (see col. 12 lines 37-57 which recite using the retransmission count as a measure of the transmission efficiency); wherein the network uses TCP; further including selecting at least one specific connection for monitoring by reference to at least one of: (a) an IP address of a connection end-point, (b) a port at an end-point, and (c) a protocol (see col. 5 lines 1-23 which recite the use of TCP as the network protocol); and further including a monitor for the packets adapted to be coupled to the point (see col. 15 line 55 to col. 16 line 5 which recite means to monitor the link characteristics clearly anticipate monitor for the packets coupled to the point). Thus, it would have been obvious to the person having ordinary skill in the art at the time the invention was made to provide the method of measuring the efficiency of data transmission including the step of reporting the retransmission count as indicative of the transmission efficiency; wherein the

network uses TCP; including selecting at least one specific connection for monitoring by reference to at least one of: (a) an IP address of a connection end-point, (b) a port at an end-point, and (c) a protocol; and further including a monitor for the packets adapted to be coupled to the point as taught by Bahl in the communications method of Sabaa et al. The method of measuring the efficiency of data transmission including the step of reporting the retransmission count as indicative of the transmission efficiency; wherein the network uses TCP; including selecting at least one specific connection for monitoring by reference to at least one of: (a) an IP address of a connection end-point, (b) a port at an end-point, and (c) a protocol; and further including a monitor for the packets adapted to be coupled to the point can be implemented by using the retransmission count; the TCP network protocol; IP address; and monitor of Bahl in the method of Sabaa et al. The motivation provide the method of measuring the efficiency of data transmission including the step of reporting the retransmission count as indicative of the transmission efficiency; the TCP network protocol; IP address; and monitor as taught by Bahl in the method of Sabaa et al. being that it provides the added features of measuring transmission efficiency at the network;

the use of the Internet via the TCP protocol; and means for monitoring packets coupled to the point.

Allowable Subject Matter

5. Claims 5-7, 10-12, 14-16, and 19-20 would be allowable if rewritten to include all of the limitations of the base claim and any intervening claims.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
Larsson et al. disclose a method and apparatus for discarding packets in a data network having automatic repeat request.
Walsh et al. disclose modem input/output signal processing techniques.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shick C Hom whose telephone number is 571-272-3173. The examiner can normally be reached on Monday to Friday with alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be

reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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